



November 27, 2007

Steve Church
Research Division
California Air Resources Board
1001 I Street
PO Box 2815
Sacramento, CA 95812

Re: Comments on Draft ETAAC Report §IV.I (Combined Heat & Power)

Dear Mr. Church:

These comments are offered on behalf of the Energy Producers and Users Coalition and the Cogeneration Association of California (EPUC/CAC). Members of these coalitions own and operate roughly 3200 MW of existing combined heat and power (CHP) generation in California, which are located primarily at refineries and enhanced oil recovery operations. Further CHP development and repowering potential exists at many of these sites, but additional policy support for CHP is required to optimize the existing potential. EPUC/CAC commend the ETAAC for including CHP in its draft *Economic and Technology Advancements for California Climate Solutions* (Draft Report) and encourage the Committee to strengthen its report as discussed below.

EPUC/CAC offer the following observations and recommendations:

1. The Draft Report includes CHP under "Industrial Technologies and Policies", rather than in the Energy Sector discussion. While the location of the discussion in the Report may not be critical, it is important that the Draft Report acknowledge CHP's unique location between the energy and industrial sectors in developing greenhouse gas (GHG) policy.
2. The Draft Report places unnecessary emphasis on AB 1613, which applies only to small-scale CHP. Historically, large-scale CHP has yielded 90% of the carbon reduction benefits in California, and significant growth potential exists for these types of facilities. The ETAAC's recommendations thus should eliminate references to AB 1613 and make clear that the recommended policy solutions will apply both to large and small scale CHP.
3. The 2009 timeframe included in the CHP discussion can be advanced to 2008. Opportunities to expedite installation of new CHP are at hand, assuming supportive regulatory policy. Many of these policy issues can be addressed by

the end of 2007 or early 2008 through the joint efforts of the CPUC, CARB and CEC.

4. The Draft Report implicitly assumes that existing CHP resources will be maintained and that the CHP policy will be aimed at new development. The ETAAC should recognize that adoption of the policy recommendations offered by the Committee bears equal importance in ensuring the continued operation of roughly 9.2 GW of existing CHP resources.
5. In addition to the policy measures identified in the Draft Report, EPUC/CAC submit that California can advance and accelerate its CHP goals by:
 - Establishing a portfolio set-aside for CHP power purchases by the utilities, similar to the RPS;
 - Ensuring reasonable pricing provisions, terms and conditions for power purchases from CHP facilities under the power purchase program administered by the CPUC;
 - Removing deployment barriers, including eliminating departing load charges and other “behind the meter” charges for load served by CHP;
 - Establishing greenhouse gas regulations that recognize the benefits of CHP, including:
 - Creating a separate CHP sector, recognizing that it straddles the industrial and electricity sectors;
 - Administratively allocating CO₂ allowances to CHP using double-benchmarking as employed by Germany and other EU-ETS member states, with no further reduction required for high-efficiency CHP;
 - Prioritizing CHP in a new entrant reserve over other fossil alternatives to recognize CHP as the right choice for fossil combustion, similar to policies implemented in the UK.
 - Recognizing new CHP installations as “early action”, either in the allocation process (double benchmarking) or through the provision of early credits to reflect CHP energy savings.

These issues are further examined below.

The Importance of CHP

CHP generation is critical to California’s ability to meet its CO₂ reduction targets, particularly in the electricity sector. CHP will serve as a vital element of the sector’s CO₂ reduction triad –energy efficiency, renewable resources and CHP – which policymakers estimate can together deliver an additional annual savings of roughly 37 MMTCO₂:

Energy efficiency:	15 MMTCO₂ Annual Savings
Renewables:	11 MMTCO₂ Annual Savings
Combined Heat & Power:	9-11 MMTCO₂ Annual Savings

While end-use energy efficiency and renewables have received considerable attention in the AB 32 debate, CHP has been undervalued. The ETAAC, through the Report, will help turn this tide by recognizing CHP's total value. CHP is an energy efficiency measure, delivering CO₂ savings by reducing natural gas use. CHP CO₂ savings also compare favorably with renewables; 1000 MW of new CHP would achieve CO₂ savings equal to 620 MW of wind or 520 MW of solar capacity.

The energy efficiency benefits of CHP merit greater focus, recognizing that fossil-fired resources will balance the state's resource mix for decades to come. State policy must recognize CHP as lower carbon power and one of the few optimal ways of burning fuels and a key CO₂ reduction measure.

CHP is a CO₂ Reduction Strategy for Both the Industrial and Energy Sectors

The Draft Report places CHP within the industrial sector, rather than the energy sector. CHP, however, straddles these two sectors, bringing several energy efficiency benefits:

- √ CHP directly reduces natural gas use by using a single fuel to produce both thermal and electric energy; operating as a natural gas end-use efficiency measure;
- √ CHP operates as an electricity end-use efficiency measure, to the extent power stays on site, by reducing grid delivery transmission losses associated with the industrial customer's consumption;
- √ CHP operates as an electricity supply side efficiency measure, increasing the generation efficiency of power delivered to consumers above the marginal generation efficiency.

In other words, CHP benefits accrue to both the natural gas and electricity sectors.

Not only do CHP benefits lie squarely within the energy sector, the policy support required to promote CHP will arise in large part from CPUC and CEC actions within that sector, as the Draft Report acknowledges. Most of the recommendations identified in the Draft Report and these comments, with the exception of final GHG regulations, lie within CPUC or CEC jurisdiction.

For these reasons, placement of CHP appears better suited in the Energy Sector than in the Industrial Technologies and Policies. At a minimum, however, the Draft Report should cross-reference CHP as a CO₂ reduction measure of key importance to the electricity or energy sector.

Emphasis on AB 1613 Should Be Limited

The Draft Report appears to root its recommendations primarily in AB 1613. This legislation, however, applies only to small-scale CHP and thus is only one element of what can be a much broader CHP policy. Historically, large-scale CHP has yielded 90% of the carbon reduction benefits in California; significant growth potential exists for these types of facilities (including EPUC/CAC member sites). The ETAAC's recommendations thus should make crystal clear that the recommended policy solutions will apply both to large and small scale CHP.

The Time is Now for CHP

The Draft Report designates 2009 as the "in place" date for CHP recommendations, seemingly hinging on AB 1613 implementation. While AB 1613 implementation may not be completed (or, perhaps, started), and additional work may be required to establish targets, opportunities to expedite CHP benefits are immediately at hand. Several important policy matters which could support both CHP retention and immediate development, are today pending decision before the CPUC and CARB. EPUC/CAC recommend, with optimism, that the timeframe for implementing pending policy support be accelerated to 2008.

Certain CHP plants have been under consideration and development, or already permitted, for several years but have not been built. A prime example is Valero's 49 MW CHP unit at its Benicia Refinery, which was permitted years ago by the CEC but has been deferred. With the right signals, this and other similar projects could be installed relatively quickly.

Many of these signals could be given immediately. Key issues pending before the CPUC for decision today include: (a) pricing and contract terms and conditions for Qualifying Facility (QF) CHP to sell to interconnected utilities (R.04-04-003/025); (b) elimination of procurement departing load charges for CHP customer generation (R.06-02-013 Track 3); (c) adoption of a CHP portfolio set-aside (R.06-02-013 Track 2); and (d) adoption of CHP-friendly GHG policies (R.06-04-009). Immediate action can be taken to accommodate near term development and installation of new CHP.

Policy Support is Also Required to Maintain Existing CHP Operations

The Draft's Report, understandably, focuses on development of new CHP plants, implicitly assuming that existing CHP resources will be maintained regardless of California's policy choices. This assumption may not be warranted; the continued operation of existing resources as CHP facilities – large scale facilities -- will depend on policy implementation by the CPUC. Most critical will be the CPUC's implementation of power purchase policies for investor owned utilities. Consequently, the ETAAC should expressly recognize that adoption of the policy

recommendations offered by the Committee will also bear importance in ensuring the continued operation of roughly 9.2 GW of existing CHP resources.

Recommendations

The Draft Report has taken great strides to set a framework for CHP policy support, and EPUC/CAC support all of the recommendations the Committee has advanced. To strengthen and clarify the Committee's work, with a goal of maximizing its effectiveness, EPUC/CAC encourage refinements of the Draft Report consistent with the recommendations provided in this letter.

We are available to discuss these and other CHP issues at your request.

Very truly yours,

A handwritten signature in cursive script, reading "Evelyn Kahl". The ink is dark and the signature is fluid, with a large initial "E" and a stylized "K".

Evelyn Kahl